

### **ABSTRACT**

The invention relates to an improved process for producing organomolybdenum compositions with high molybdenum content that are highly useful as lubricant additives, in which the  
5 process involves reacting a fatty oil with a diamine, followed by reaction with a molybdenum source. The process of the present invention does not require a volatile organic solvent to promote molybdenum incorporation and produces an organomolybdenum composition having a high molybdenum content. In addition, the process can be conducted in the absence of sulfur and phosphorus-containing reactants.